

Notice of Allowability

Application No.

10/050,776

Examiner

Michael P. Stafira

Applicant(s)

HAMAMATSU ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 8/8/2006.
2. ☒ The allowed claim(s) is/are 1-5, 7-17, 19-23, 26-27, 29.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Allowable Subject Matter

2. Claims 1-5, 7-17, 19-23, 26-27, 29 are allowed over the prior art of record.
3. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art fails to disclose or make obvious a defect-inspecting apparatus having a comparison and judgment unit which classifies defects on the object to be inspected into scratches, thin film-like foreign materials or convex defects by using the first signal and/or the second signal, which have been converted by the light receiving optical unit of the detection optical system, wherein the comparison and judgment unit is configured to classify foreign materials, which are convex defects, into a small group and a large group on a basis of data in response to a defect size calculated from the first signal and the second signal, and in combination with the other recited limitations of claim 1. Claims 2-5, 7-12 are allowed by the virtue of dependency on the allowed claim 1.

Regarding claim 13, the prior art fails to disclose or make obvious a defect-inspecting apparatus having a comparison and judgment unit which classifies defects on the object to be inspected into concave defects or convex defects on a basis of a correlation between the first signal and the second signal which have been converted by the light receiving optical unit in the

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detection optical system; wherein the comparison and judgment unit is configured to classify particulate foreign materials, which are the convex defects, into a small group and a large group on a basis of data in response to a defect size calculated from the first and the second signals, and in combination with the other recited limitations of claim 13. Claims 14-17, 19-23 are allowed by the virtue of dependency on the allowed claim 13.

Regarding claim 26, the prior art fails to disclose or make obvious a defect inspecting method having the steps of comparing and judging to classify defects on the object to be inspected into scratches, thin film-like foreign materials or convex defects by using the first signal and/or the second signal which have been converted by the converting operation; wherein the comparing and judging operation includes to classify foreign materials, which are convex defects, into a small group and a large group on a basis of data in response to a defect size calculated from the first signal and the second signal, and in combination with the other recited limitations of claim 27.

Regarding claim 29, the prior art fails to disclose or make obvious a method for producing a semiconductor device having the steps of comparing and judging to classify defects on the object to be inspected into scratches, thin film-like foreign materials or convex defects by using the first signal and/or the second signal, which have been converted by the converting operation; wherein the comparing and judging operation includes to classify foreign materials, which are convex defects, into a small group and a large group on a basis of data in response to a defect size calculated from the first signals and the second signal, and in combination with the other recited limitations of claim 29.

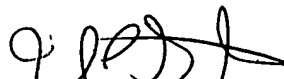
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Michael P. Stafira
Primary Examiner
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October 23, 2006

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